

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method of processing an application request on an end user application and an application server including a ~~mapping support language runtime~~ middleware, the method comprising:

a) initiating the application request on the end user application in a first language with a first application program, wherein the end user application is a web browser, a SOAP application, or a Java application;

b) transmitting the application request to the server and converting the application request from the first language of the first end user application to a form for the mapping support language running on the application server, wherein the end user application is connected to the application server through a ~~web server runtime middleware that is an application or a web application server, and the web~~ application server comprises a connector;

c) processing said application request on the application server;

d) transmitting a response to the application request from the application server to the end user application, and converting the response to the application request from the mapping support language running on the application server to the first language of the first end user application; and

e) wherein the connector comprises invocation and transformation capabilities, wherein the connector comprises a language metamodel to define data structures that represent

connector interfaces, wherein the language metamodel indicates a source language, a target language, and a mapping between the source language and the target language, wherein the language metamodel comprises declaration text that is not editable, wherein the connector comprises a type descriptor metamodel that is language neutral and that defines a physical realization, a storage mapping, and a plurality of constraints, wherein the type descriptor metamodel provides a physical representation of individual fields of a given data structure, wherein the type descriptor metamodel provides data types mapping between languages, wherein the connector comprises invocation metamodel data, application domain interface metamodel data, transaction message metamodel data, and type descriptor metamodel data, wherein the connector is configured to (i) convert the application request from the first language of the first end user application as a source language to the language running on the application server as a target language, and (ii) convert a response to the application request from the language running on the application server as a source language to the first language of the first end user application as a target language, each comprise:

- 1) invoking connector metamodels of respective source language and target mapping support language;
- 2) populating the connector metamodels with metamodel data of each of the respective source language and target mapping support language, the metamodel data ~~capturing with comprising~~ 3270 screen formatting for 3270-based applications, the metamodel data ~~including comprising~~ a Basic Mapping Support (BMS) map, a BMS mapset, ~~and a BMS mapfield, and BMS attributes~~, wherein the BMS mapset comprises a plurality of programming attributes, wherein the programming attributes comprise a storage operand that varies based on a

language of an application program, wherein the BMS attributes comprise a control attribute that defines characteristics of 3270 terminals, and an alarm attribute that activates a 3270 audible alarm; and

- 3) converting the source language to the mapping support language.

2-12. (Canceled)

13. (New) The method of claim 1 wherein the connector uses BMS metadata for interpretive marshaling.

14. (New) The method of claim 1 wherein the connector uses adapters.

15. A computer-program product processing an application request on an end user application and an application server including a runtime middleware, the computer program product comprising a storage medium tangibly embodying computer readable program code, the computer program product comprising:

- a) code for initiating the application request on the end user application in a first language with a first application program, wherein the end user application is a web browser, a SOAP application, or a Java application;
- b) code for transmitting the application request to the server and converting the application request from the first language of the first end user application to a form for the mapping support language running on the application server, wherein the end user application is

connected to the application server through a runtime middleware that is an application or a web application server, the web application server comprising a connector;

c) code for processing said application request on the application server;

d) code for transmitting a response to the application request from the application server to the end user application, and converting the response to the application request from the mapping support language running on the application server to the first language of the first end user application; and

e) wherein the connector comprises invocation and transformation capabilities, wherein the connector comprises a language metamodel to define data structures that represent connector interfaces, wherein the language metamodel indicates a source language, a target language, and a mapping between the source language and the target language, wherein the language metamodel comprises declaration text that is not editable, wherein the connector comprises a type descriptor metamodel that is language neutral and that defines a physical realization, a storage mapping, and a plurality of constraints, wherein the type descriptor metamodel provides a physical representation of individual fields of a given data structure, wherein the type descriptor metamodel provides data types mapping between languages, wherein the connector comprises invocation metamodel data, application domain interface metamodel data, transaction message metamodel data, and type descriptor metamodel data, wherein the connector is configured to (i) convert the application request from the first language of the first end user application as a source language to the language running on the application server as a target language, and (ii) convert a response to the application request from the language running

on the application server as a source language to the first language of the first end user

application as a target language, each comprise:

- 1) code for invoking connector metamodels of respective source language and target mapping support language;
- 2) code for populating the connector metamodels with metamodel data of each of the respective source language and target mapping support language, the metamodel data comprising 3270 screen formatting for 3270-based applications, the metamodel data comprising a Basic Mapping Support (BMS) map, a BMS mapset, a BMS mapfield, and BMS attributes, wherein the BMS mapset comprises a plurality of programming attributes, wherein the programming attributes comprise a storage operand that varies based on a language of an application program, wherein the BMS attributes comprise a control attribute that defines characteristics of 3270 terminals, and an alarm attribute that activates a 3270 audible alarm; and
- 3) code for converting the source language to the mapping support language.

16. (New) The computer-program product of claim 15 wherein the connector uses BMS metadata for interpretive marshaling.

17. (New) The computer-program product of claim 15 wherein the connector uses adapters.